

## ABSTRACT

A mass spectrometry system for continuous control of environment based on the use of an aerosol TOF MS that provides operation with a high duty cycle of up to 98% and can be realized in the form of a mobile unit having a data acquisition and analysis system with three levels of data correlation on the basis of constant interaction between various actuating mechanisms of the system via a central processing unit. The TOF MS is based on the use of quadrupole lenses with angular gradient of the electrostatic field. As a result, two independently analyzed discrete flows of particles pass through the ion mass separation chamber of the TOF MS without interference with each other. The system can be mounted either on an underwater and ground vehicle, or on an aircraft.

Respectfully submitted,

By 

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